

Agilent CrossLab Start Up Services

Agilent MicroLab Pharma v5.8 Software Site Preparation Checklist

Thank you for purchasing software from **Agilent Technologies**. CrossLab Start Up is focused on helping customers shorten the time it takes to start realizing the full value of their instrument system investment.

Correct site preparation is the key first step in ensuring that your instruments and software systems operate reliably over an extended lifetime. This document is an **information guide and checklist** prepared for you that outlines the software requirements for the system set up in your lab.

Introduction

Customer Information

- If you have questions or problems in providing anything described as part of Customer Responsibilities below, please contact your local Agilent or partner support / service organization for assistance prior to delivery. In addition, Agilent and/or its partners reserve the right to reschedule the installation dependent upon the readiness of your laboratory.
- Should your site not be ready for whatever reasons, please contact Agilent as soon as possible to re-schedule any services that have been purchased.
- Other optional services such as additional training, operational qualification (OQ) and consultation for user-specific applications may also be provided at the time of installation when ordered with the system but should be contracted separately.

Customer Responsibilities

Ensure that your site meets the following specifications before the installation date. For details, see specific sections within this checklist, including:

- The **computing environment** and the necessary space is made available.
- The number and location of **electrical outlets** for your computer systems and peripherals are planned.
- Your site meets the **software, hardware, and networking specifications** described later in this document.
- Locate your **sales order information**, software authorization codes, and/or software licenses/certificates.
- Check for Hotfix, Microsoft updates, and patch compatibility appropriate for the customer's system. **Critical Note: Current Microsoft updates and Windows version must be installed in the customer provided PC before installation can begin.**
- The necessary **software media**, disks etc. are available including upgrade/update disks.
- That a suitable **backup solution** is identified for your software.
- If Agilent is delivering **Installation and Introduction services**, users of the instrument system should be present throughout these services. Otherwise, they will miss important operational, maintenance, and safety information.
- Availability of a **system/network administrator** as needed to connect to your intranet.

- Please consult the **Special Requirements** section for other product-specific information.

Important Customer Web Links

- To access Agilent training and education, visit <http://www.agilent.com/chem/training> to learn about training options, which include online, classroom and onsite delivery. A training specialist can work directly with you to help determine your best options.
- To access the **Agilent Resource Center** web page, visit <https://www.agilent.com/en-us/agilentresources>. The following information topics are available:
 - Sample Prep and Containment
 - Chemical Standards
 - Analysis
 - Service and Support
 - Application Workflows
- The **Agilent Community** is an excellent place to get answers, collaborate with others about applications and Agilent products, and find in-depth documents and videos relevant to Agilent technologies. Visit <https://community.agilent.com/welcome>
- Videos about specific preparation requirements for your instrument can be found by searching the **Agilent YouTube** channel at <https://www.youtube.com/user/agilent>
- **Need to place a service call?** [Flexible Repair Options | Agilent](#)

Important Version and Hardware Information

- Please refer to the following table for supported MicroLab Pharma software, firmware and hardware configurations.

MicroLab Version (Firmware)	Supported Instrument Hardware
5.8 (FW 1.96)	Agilent Cary 630 FTIR; FTIR 4500 and 5500; FTIR 4300 HH

Site Preparation

Software Specifications for Workstations, Clients and Servers

Special notes

- If you have purchased a system including hardware instrumentation, refer to the instrument Site Preparation Checklist for requirements regarding laboratory bench space requirements.
- **Implement a backup strategy or backup all your data prior to making any changes.**
- Always test your data recovery process.
- No other instrument software can be installed.
- A user logon with full administrative capabilities is required at the time of installation.
- Make sure SPT (System Preparation Tool) is running and all steps in the list are completed and pass prior to installation of MicroLab PC/Pharma v5.8. For detailed instructions, see the MicroLab Pharma Software Installation and Configuration document.
- Upgrading from MicroLab Pharma version 5.2 or earlier will require updates to the PC or operating system. This means an upgrade cannot be installed over an existing installation.
- If upgrading from MicroLab Pharma 5.3 or later, please follow the upgrade instructions in the Agilent MicroLab Pharma Software Installation Instructions for 21 CFR Part 11 manual. Failure to follow the instructions exactly may require the PC needing to be reimaged.
- Upgrading the MicroLab Pharma software requires backing up SCM settings and SDA databases so they can be used for the new system. Make sure the instructions in the manual above are followed otherwise data loss will occur.
- There are some administrative tasks that need to be performed before and after installation of MicroLab Pharma - refer to the following table, the rest of this document and the Pharma software installation booklet.
- **Further Upgrade information:**
 - **Direct upgrades from versions earlier than MicroLab Pharma 5.3 are not supported.**
 - **To upgrade from MicroLab Pharma 5.6 or earlier, carefully follow the instructions provided in the MicroLab Pharma 5.8 Install and Configuration Instructions.**
 - **Data from versions MicroLab 5.6 and earlier are compatible with MicroLab 5.8.**

- Upgrade services (if available) only include:
 - Direct upgrade on the original PC.
 - Installing to a new PC.
- Upgrade services **do not** include:
 - Backing up or restoring data.
 - Transferring data/Verifying Data.
 - Installing or upgrading operating systems.
 - IQ/OQ
 - Please contact your local Agilent representative for more information.
- If you have purchased a system including hardware instrumentation, refer to the instrument Site Preparation Checklist for requirements regarding laboratory bench space requirements.

Clients (MicroLab)

Software Specification Description	Supported	Comments
Operating system name, version	Microsoft Windows 10 Revision 22H2 or higher Microsoft Windows 11 Revision 22H2 or higher	64-bit only Windows 10: Evaluated on Enterprise (LTSC) and Pro. Windows 11: Evaluated on Enterprise and Pro.
O/S .NET and other add-ons	.NET 4.8 Advanced Services .NET 3.5.1	Installed by the System Preparation Tool if required.
Language settings/compatibility	English Only.	MicroLab Pharma is supported on Microsoft Windows English language operating systems only.
Account settings/privileges	Full Local Administrator privileges	Required for installation, configuration and upgrading.
Microsoft Windows Updates	Outstanding updates must be completed or must not start before installing software	
PDF Reader	Adobe Acrobat Reader DC	Required to view manuals and documentation.
Antivirus software	Symantec Endpoint Protection	

Software Specification Description	Supported	Comments
Power Saving	None - disable sleep or power saving modes. If enabled, this may result in data loss or unstable instrument control.	Any PC power saving functions for hardware such as hard disks, monitor, LAN etc. should be disabled.
Microsoft SQL Server Express	Microsoft SQL Server 2022 Express Edition.	Limitations: Microsoft SQL Server Express supports 1 physical processor, 1 GB memory, and 10 GB storage.

Servers (IT Server/Lab Management Server)

Software Specification Description	Supported	Comments
Operating system name, version	MS Windows Server 2016 MS Windows Server 2019 MS Windows Server 2022	64-bit only
O/S .NET and other add-ons	.NET 4.8 Advanced Services .NET 3.5.1	Installed by the System Preparation Tool if required.
Language settings/compatibility	English Only	MicroLab Pharma is supported on Microsoft Windows English language operating systems only.
Account settings/privileges	Full Local Administrator privileges	Required for installation, configuration and upgrading.
Microsoft Windows Updates	Outstanding updates must be completed or must not start before installing software.	
PDF Reader	Adobe Acrobat Reader DC	Required to view manuals and documentation.
Antivirus software	Symantec Endpoint Protection	
Power Saving	Disabled	Any PC power saving functions for hardware such as hard disks, monitor, LAN etc. should be disabled.
Microsoft SQL Server Express	Microsoft SQL Server 2022 Express Ed. Full version of MS SQL Server is not supported.	Limitations : Microsoft SQL Server Express supports 1 physical processor, 1 GB memory, and 10 GB storage.
Mixed Mode (Different Spectroscopy SW)	Only MicroLab can be used.	No mixed instrument software or Pharma Versions are supported.

Computer Hardware Specifications for Workstations, Clients and Servers

Special notes

- Agilent FTIR bench, compact and mobile systems are evaluated under Agilent's ISO9001 procedures using MicroLab software and a laptop computer. We strongly recommend a computer configuration that matches the system used during evaluations.

Client/Workstation

Hardware Specification Description	Evaluated Configuration	Evaluated Operating System	Comments
Desktop Computer	HP Z2G9	Windows 10 Pro 22H2 Windows 10 Ent 21H2 (LTSC) Windows 11 Pro 22H2 Windows 11 Pro 23H2 Windows 11 Ent 24H2 (LTSC)	64-bit only
Laptop Computer	HP Elitebook 655 G11	Windows 10 Pro 22H2 Windows 10 Ent 21H2 (LTSC) Windows 11 Pro 22H2 Windows 11 Pro 24H2 Windows 11 Ent 24H2 (LTSC)	64-bit only
Processor type and speed	Intel® Core i5-12500 3.0 GHz (Desktop) AMD Ryzen 5 Pro 7535U 4.5 GHz (Laptop)		
Memory	8GB		
Internal storage/devices/media	512GB solid-state-drive		
Graphics resolution	1600 x 900		
Pointing devices	Computer Mouse		
USB Port	USB 2.0		Required for installation
LAN	100/1000 MBIT		Required for network connectivity

Servers

Hardware Specification Description	Minimum Requirements	Comments
Processor type and speed	Intel® i5 or equivalent 3.0 GHz or greater 6 Core	
Memory	8GB	
Internal storage/devices/media	512GB solid-state-drive	
Graphics resolution	1600 x 900	
Pointing devices	Computer Mouse	
USB Port	USB 2.0	Required for installation
LAN	100/1000 MBIT	Required for network connectivity
WAN	N/A	WAN is not tested or supported.
Cloud Support	N/A	Cloud environments are not tested or supported.

Virtual Machines (Servers)

The virtual machine must meet or exceed the software application’s hardware and server software requirements.

Agilent cannot provide support for reliability or performance problems when the virtualization software is used.

Refer to the **Agilent Spectroscopy Configuration Manager System Requirements** document for further details.

Description	Evaluated Virtual Machine Host	Comments
MicroLab Pharma 5.8	Microsoft Hyper-V Manager v10.0.17763.1	Evaluated Servers (64-bit only): - Microsoft Server 2016 - Microsoft Server 2019 - Microsoft Server 2022
Cloud Support	N/A	Virtual Machines are not tested or supported in a Cloud environment.

MicroLab Pharma Scenario Options

Special notes

- MicroLab Pharma allows for installation in different scenarios.
- The scenario chosen depends on the desired configuration for collection of data and control of electronic records using the Pharma application.
- Scenario 1 is for local computer installations (using local or domain users).
- Scenario 2 and 3 is for installation in a network environment.
- You must decide on the scenario being used for your installation before your Agilent representative arrives onsite.
- For Scenarios 2 and 3, your IT support personnel must be present during the installation and configuration. If they are not present, it is possible that installation cannot be completed in the allotted time and this may result in extra charges.
- Terminology:
 - The software used to run the instrument is known as the '**application software**'.
 - Spectroscopy Configuration Manager (**SCM**) provides you with a tool to manage your 21 CFR Part 11 environment by allowing you to create, configure and maintain data in relation to system security, user management and data paths.
 - Spectroscopy Database Administrator (**SDA**) provides a database environment to store and maintain your data.
 - The **IT Server** (Scenario 2/3): is the computer where the data is stored.
 - The **Laboratory Management Computer** (Scenario 2): is the server where the users, profiles and privileges are managed.

- Installation outside of the instructions provided will require external IT support and independent validation and is not supported by Agilent.

Options	Description
Scenario 1	All software is installed on the computer connected directly to the instrument.
Scenario 2	Application software is installed on the instrument computer. SCM is installed on the laboratory management Server. SDA is installed on an IT server.
Scenario 3	Application software is installed on the instrument computer. SDA and SCM are installed on IT server.

Software Specifications for MicroLab Pharma (Standalone)

Special notes

- Implement a backup strategy or backup all of your data before making any changes.
- Before you install your software, please check with your network administrator that the computer has a unique name that will not be changed in the future. If the computer is to be connected to a domain, please ensure that this is completed before installing your software.
- Agilent strongly recommends that your software is installed while logged in as a domain user with administrative privileges after the computer is added to the domain.
- Make sure SPT (System Preparation Tool) is running and all steps in the list pass prior to installation of MicroLab PC/Pharma v5.8. For detailed instructions, see the MicroLab Pharma Software Installation and Configuration document.

Software Specifications for MicroLab Pharma (Network)

Special notes

- Before you install your software, please check with your network administrator that the computer has a unique name that will not be changed in the future. If the computer is to be connected to a domain, please ensure that this is completed before installing your software.
- It is essential that support from an IT representative is available. They will need to assist in allowing the required access to the domain, the creation of domain groups and the assignment of users to their target groups if required.
- A user with local administrator rights for the IT Server and for the Workstation is required so configuration can take place.
- A Domain user used for the installation must exist and the global groups to handle MicroLab users must be available.
- A global account for the MicroLab administration is required.
- The target computers for the installation must be members of the Domain.
- The domain server and the server for the data must be different machines.
- Please review the document "Agilent MicroLab Pharma Software Installation Instructions for 21 CFR Part 11" for further information.
- Having MicroLab operate within a MicroLab Pharma in a network environment, requires some configuration tasks on the MicroLab Pharma Server.

Active Directory Requirements

Software Specification Description	Minimum	Comments
Agilent Spectroscopy Configuration Manager System Requirements	Microsoft Windows 2008 Active Directory – Single Forest / Single Domain model environment	N/A
Network Active Directory/Domain Users	Yes	Active Directory is required if using network domain users.

Required Configuration Items

Special notes

- Particularly in the case of network installations, several software services and applications must not be prevented from running or getting access through the computer firewall.
- Implement a backup strategy or backup all of your data before making any changes.
- Before you install your software, please check with your network administrator that the computer has a unique name that will not be changed in the future. Changes to this configuration item after installation and configuration will result in a non-operational system. This is not covered under any warranty services and extra costs may be involved if a site visit is required to rectify this.
- If the computer is to be connected to a domain, please ensure that this is completed before installing your software.
- Agilent requires that your software is installed while logged in as a domain user with administrative privileges. Depending on the configuration, only a local administrator account can be used for installing the software. Some additional configuration will need to take place if this is the case.

Specification Description	Supported	Comments
Region and Language settings / compatibility	English	Only English is supported for Pharma software.
.Net Framework	Microsoft .NET Framework 3.5 and 4.5.1	N/A
Add as exceptions to the Windows Firewall	C:\Program Files\Microsoft SQL Server\MSSQL.16.SQLEXPRESS\MSSQL\Binn\sqlservr.exe C:\Program Files (x86)\Microsoft SQL Server\90\Shared\sqlbrowser.exe	N/A

Specification Description	Supported	Comments
	C:\Program Files (x86)\Varian\21 CFR 11\Configuration manager\Server\CMDData\nxServer.exe C:\Program Files (x86)\Varian\21 CFR 11\Configuration manager\Server\configManager.exe	

Additional Firewall Requirements

If there are additional firewalls implemented, it may be necessary to open the following firewall ports.

For network firewall configurations, please request support from your IT representative to fix the issue.

Specification Description	Ports
Additional Firewall Requirements	Instrument PC (application software) outbound ports: 16001, 50155, TCP 1433, TCP 4022, TCP 135, TCP 1434 and UDP 1434. Lab management computer (SCM) inbound ports: 16001 and 50155. IT Server (SDA) inbound ports: TCP 1433, TCP 4022, TCP 135, TCP 1434 and UDP 1434. Connections to the above ports are dynamically assigned to client ports in the range of 49152 – 65535. These are known as ephemeral ports.

Antivirus Exceptions

If antivirus software is used, the following need to be added as exceptions.

Specification Description	Supported	Comments
Add as exceptions to the Antivirus software	C:\Program Files\Microsoft SQL Server\MSSQL.16.SQLEXPRESS\MSSQL\Binn\sqlservr.exe C:\Program Files (x86)\Microsoft SQL Server\90\Shared\sqlbrowser.exe C:\Program Files (x86)\Varian\21 CFR 11\Configuration manager\Server\CMDData\nxServer.exe C:\Program Files (x86)\Varian\21 CFR 11\Configuration manager\Server\configManager.exe C or D:\Spectroscopy Database	Do not use Realtime protection

Specification Description	Supported	Comments
	C:\Users\Public\Documents\Agilent\MicroLab C:\ProgramData\Varian C:\Program Files (x86)\Agilent C:\Program Files (x86)\Agilent Technologies C:\Program Files(x86)\Common Files\Agilent Technologies C:\Program Files(x86)\Common Files\Agilent C:\Program Files(x86)\Varian C:\Program Files(x86)\Microsoft SQL Server C:\Program Files\Microsoft SQL Server	

Special Requirements

- For further details on release notes, known issues, supported hardware, software, instruments, and firmware requirements please refer to the following documents which can be found on the installation media or by contacting your local Agilent representative:
 - **Agilent Spectroscopy Configuration Manager System Requirements**
 - **Agilent MicroLab Pharma 5.8 Release Notes**
 - **Agilent MicroLab Pharma 5.8 Release Notes and SSB**
 - **Agilent MicroLab Pharma 5.8 Software Functional Design Specification and Topologies**
- For further details on installation and administration, including more detailed site preparation requirements, please consult **Agilent MicroLab Pharma 5.8 Software Installation and Configuration** document which can be found on the installation media or by contacting your local Agilent representative.

Service Engineer Review (Optional)

Service Engineer Comments

If the Service Engineer completed a review of the Site Preparation requirements with the customer, the Service Engineer should complete the following sections below.

If there are any specific points that should be noted as part of performing the service review or other items of interest for the customer, please write in this box.

Site Preparation Verification

Service Request Number:

Date of Review:

Service Engineer Name:

Customer Name:

Service Engineer Signature:

Total number of pages in this document:

15